

AN/SSC-12 SHIPBOARD AIR TRAFFIC CONTROL COMMUNICATIONS SYSTEM

EXECUTIVE SUMMARY

This Navy Training System Plan (NTSP) has been developed to identify the manpower, personnel, and training requirements associated with the AN/SSC-12 Shipboard Air Traffic Control Communications (SATCC) System. The SATCC System provides intercom, interphone, and radio communications switching via digitized voice and data busses aboard Aircraft Carriers (CV) and Nuclear Aircraft Carriers (CVN).

Installation has been completed aboard two CVNs and one CV. Initial Operating Capability was achieved in FY98. Installation aboard the remaining CVs and CVNs is scheduled between FY01 and FY03. Procurement of the SATCC System is being accomplished through a Non-Acquisition Category procurement action that utilizes the Abbreviated Acquisition Program. SATCC components are Non-Developmental Items obtained through Commercial Off-The-Shelf procurement.

The SATCC System is primarily operated by Air Traffic Controllers, the Carrier Controlled Approach Officer, Landing Signal Officers (LSO), the Air Officer, the Assistant Air Officer, the Air Operations Officer, and the Assistant Air Operations Officer. Additional communication devices are provided to Operations Specialists in the Combat Direction Center, the Commanding Officer, the Officer of the Deck, etc.

Maintenance of the SATCC System is performed at two levels; organizational and depot. Organizational level maintenance of the SATCC System is performed by Electronics Technicians (ET) with Navy Enlisted Classification code 1425. A depot level maintenance plan has not been established at this time.

Initial operator training consists of Computer-Based Training provided by the Program Office, Naval Sea Systems Command (NAVSEA), Code 53Z. Additionally, In-Service Engineering Activity personnel from the Space and Naval Warfare (SPAWAR) Systems Center Charleston detachment in Norfolk, Virginia, conduct familiarization training and On-the-Job Training (OJT) for both operators and maintainers prior to and during the initial at-sea period. Until follow-on training is established, NAVSEA Code 53Z will fund two maintenance technicians from each activity receiving the SATCC System to attend Rapid Deployable Voice Switch (RDVS) IIA training at the Federal Aviation Administration (FAA) Academy in Oklahoma City, Oklahoma.

Follow-on operator training for Carrier Air Traffic Control Center personnel, LSOs, Air Officers, Assistant Air Officers, Air Operations Officers, and Assistant Air Operations Officers will be incorporated into the existing course at Naval Air Technical Training Center Pensacola, Florida, and the LSO School at Naval Air Station Oceana, Virginia. The remaining operators will

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receive training via Personnel Qualification Standards and OJT. Follow-on SATCC System maintenance training will be accomplished by sending ET 1425 personnel that have Permanent Change of Station orders to CVs and CVNs to the RDVS IIA course at the FAA Academy in Oklahoma City, Oklahoma. Formal follow-on training will begin when 50 percent of the aircraft carriers are configured with the SATCC System.

SATCC System operator billets are watch-station driven and therefore, introduction of the SATCC System will not increase operator manpower requirements. SPAWAR has conducted a Reliability Centered Maintenance Analysis and has determined that the addition of SATCC System planned maintenance will increase the Maintenance Technician ET NEC 1425 workload by 35 man-hours annually and will decrease NEC 1568 workload by 1535 man-hours annually.

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LIST OF ACRONYMS

AC Air Traffic Controller ATC Air Traffic Control

CATCC Carrier Air Traffic Control Center

CBT Computer-Based Training
CCA Carrier Controlled Approach
CDC Combat Direction Center
CIN Course Identification Number

COMNAVAIRLANT Commander, Naval Air Force Atlantic

COTS Commercial Off-The-Shelf

CV Aircraft Carrier

CVN Nuclear Aircraft Carrier

CVW Carrier Air Wing

ET Electronics Technician

FAA Federal Aviation Administration

FRS Fleet Readiness Squadron

HSI Human Systems Integration

HUD Heads-Up Display

ISEA In-Service Engineering Activity

LRU Lowest Repairable Unit LSO Landing Signal Officer

MRC Maintenance Requirements Cards

MSD Material Support Date

NA Not Applicable NAS Naval Air Station

NATOPS Naval Air Training and Operating Procedures Standardization

NATTC Naval Air Technical Training Center

NAVEDTRA Naval Education and Training NAVSEA Naval Sea Systems Command NDI Non-Developmental Item

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LIST OF ACRONYMS

NEC Navy Enlisted Classification NTSP Navy Training System Plan

OJT On-the-Job Training OOD Officer Of the Deck

OPO OPNAV Principal Official OS Operations Specialist

PICT Programmable Integrated Communication Terminal

PM Preventive Maintenance

PMS Preventive Maintenance System
PQS Personnel Qualification Standards

PRI-FLY Primary Flight Control

RCM Reliability Centered Maintenance RDVS Rapid Deployable Voice Switch

RFT Ready For Training

SATCC Shipboard Air Traffic Control Communications

SPAWAR Space and Naval Warfare

TD Training Device
TED Touch Entry Display

TTE Technical Training Equipment

USW Undersea Warfare

UW Under Way

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PREFACE

This April 2001 iteration is the first update to the original May 2000 Initial Navy Training System Plan (NTSP) for the AN/SSC-12 Shipboard Air Traffic Control Communications (SATCC) System, A-50-0003/I. This document explores the various employment and support alternatives currently under consideration. Since it is relatively early in the development process, some definitive data was unavailable for inclusion in this version. This NTSP is a product of the Training Planning Process Methodology, as outlined in OPNAV Publication P-751-3-9-97.

This revision incorporates comments on the May 2000 version, including removal of information relating to the installation of the SATCC System aboard Amphibious Assault Ships, and incorporation of maintenance manpower and follow-on training information decided upon at the SATCC System NTSP Conference held 1 November 2000.

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PART I - TECHNICAL PROGRAM DATA

A. NOMENCLATURE-TITLE-PROGRAM

- **1. Nomenclature-Title-Acronym.** AN/SSC-12 Shipboard Air Traffic Control Communications (SATCC) System
 - 2. Program Element. 024112N

B. SECURITY CLASSIFICATION

1.	System Characteristics	Unclassified
2.	Capabilities	Unclassified
3.	Functions	Unclassified

C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS

OPNAV Principal Official (OPO) Program Sponsor
OPO Resource Sponsor
Developing Agency
Training Agency
Training Support Agency
Manpower and Personnel Mission Sponsor
Director of Naval Training

D. SYSTEM DESCRIPTION

1. Operational Uses. The SATCC System uses the Federal Aviation Administration's (FAA) Rapid Deployable Voice Switch (RDVS) as its basic building block, and coupled with Programmable Integrated Communication Terminals (PICT), provides intercom, interphone, and radio communications switching via digitized voice and data busses aboard Aircraft Carriers (CV)

and Nuclear Aircraft Carriers (CVN). The system provides voice communications between Air Traffic Control (ATC) operator positions and the following:

- ° Other ATC operator positions in the warfare center, through the intercom function
- ° Command and control positions throughout the ship, through the interphone function
- ° Aircraft, through the radio function
- Shipboard telephone system and other interior communication systems
- **2. Foreign Military Sales.** No foreign military sales are currently planned for the SATCC System. The United States Army and the FAA currently employ a version of the SATCC System.
- **E. DEVELOPMENTAL TEST AND OPERATIONAL TEST.** Since the SATCC System is a Commercial Off-The-Shelf (COTS) Non-Developmental Item (NDI), no developmental testing was conducted. Operational testing was successfully completed aboard the USS Enterprise in 1998 and USS Harry S. Truman in 2000 which included Landing Signal Officer (LSO) terminals and terminals installed in Primary Flight Control (PRI-FLY). The only modification made to the COTS equipment was to harden the components for shipboard environment and to modify software to support the features and functions of the fleet users.
- **F.** AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED. The SATCC System is a direct replacement for the OJ-314(V) Voice Communication Switch and communication devices and ancillary equipment on the LSO platform and in PRI-FLY.

G. DESCRIPTION OF NEW DEVELOPMENT

1. Functional Description. The SATCC System is an integrated voice switching system that provides both air-to-ground and ground-to-ground connectivity to support the ATC voice communication function. The SATCC System will permit simultaneous operation of all operational positions to either make radio transmissions, place calls, receive calls, or all functions. The SATCC System consists of terminals located at each operator position, which will control the communications switching equipment located in an equipment room. The SATCC System is modular in design and can accommodate up to 16 PICTs and 16 Touch Entry Displays (TED) located throughout the ship.

2. Physical Description

a. Equipment Room. The equipment room consists of multiple components as follows:

COMPONENT	QUANTITY	DIME! HEIGHT	NSIONS (IN WIDTH	CHES) DEPTH	WEIGHT (POUNDS)
Uninterruptible Power Supply (optional)	1	72.0	22.3	26.00	1,100
By-Pass Switch (optional)	1	17.0	12.0	7.00	20
3080G Switch	1	72.0	44.6	26.00	1,340
TED (enclosed in Switch Rack)	1	15.5	10.0	14.60	20
PICT (enclosed in Switch Rack)	1	7.5	7.5	5.87	8

Note: Systems are configured with either a UPS and By-Pass Switch or an embedded Battery Back-up feature.

- **b. Operator Locations.** In addition to the TED and PICT in the equipment room, there are additional TEDs and PICTs located at operator sites throughout the ship. The physical dimensions and weight of these units are the same as those located in the equipment room. TEDs are terminals used by supervisors and controllers working radar display consoles in Carrier Air Traffic Control Center (CATCC), the LSOs on the LSO platform, and the Air Officers in PRI-FLY. PICTs are used by status board operators, data display operators, Combat Direction Center (CDC) operators, and persons in a command and control position directly associated with flight operations.
- **3. New Development Introduction.** The SATCC System is a NDI that was introduced to the fleet through COTS procurement.
- **4. Significant Interfaces**. The SATCC System interfaces with Ship's Service Telephone System, Sound Powered Phone System, ATC radios via Black Secure Voice Switch, ATC audio and video recorder, and the Integrated Launch and Recovery Television System.
 - **5. New Features, Configurations, or Material.** Not Applicable (NA)

H. CONCEPTS

1. Operational Concept. The SATCC System is operated in various locations throughout the ship as follows:

POSITION	OPERATOR	ITEM	QUANTITY	LOCATION
Carrier Controlled Approach (CCA) Officer	639X	TED	1	CATCC
CCA Supervisor	Air Traffic Controller (AC)	TED	1	CATCC
Marshal Controller	AC	TED	1	CATCC
Departure Controller	AC	TED	1	CATCC
Approach Controller "A"	AC	TED	1	CATCC
Approach Controller "B"	AC	TED	1	CATCC
Final Controller "A"	AC	TED	1	CATCC
Final Controller "B"	AC	TED	1	CATCC
Air Operations Supervisor	AC	TED	1	CATCC
Air Officer	13XX	TED	1	PRI-FLY
Assistant Air Officer	13XX	TED	1	PRI-FLY
Carrier Air Wing (CVW) LSO	13XX	TED	1	LSO Platform
LSO	13XX	TED	1	LSO Platform
PRI-FLY Supervisor	Aviation Boat- swain's Mate	PICT	1	PRI-FLY
Visual Display Board Operator	AC	PICT	1	CATCC
Marshal Data Input Operator/Status Board Keeper	AC	PICT	1	CATCC
Approach Data Input Operator/Status Board Keeper	AC	PICT	1	CATCC
Air Operations Data Input Operator/Status Board Keeper	AC	PICT	1	CATCC
Land Launch Record Keeper/Data Input Operator	AC	PICT	1	CATCC
Air Operations Officer	13XX	PICT	1	CATCC

POSITION	OPERATOR	ITEM	QUANTITY	LOCATION
Assistant Air Operations Officer	13XX	PICT	1	CATCC
Strike Control Operator	Operations Specialist (OS)	PICT	1	CDC
Air Intercept Control Operator	OS	PICT	1	CDC
Tactical Action Officer	13XX	PICT	1	CDC
Undersea Warfare (USW) Operator	Aviation Warfare Systems Operator /OS	PICT	1	CDC
Commanding Officer	13XX	PICT	1	Bridge
Officer Of the Deck (OOD)	Various	PICT	1	Bridge

- **2. Maintenance Concept.** SATCC System maintenance is based on two levels of maintenance; organizational and depot.
- **a. Organizational.** Organizational level maintenance of the SATCC System is performed by Navy personnel in the Electronics Technician (ET) rating with Navy Enlisted Classification (NEC) code 1425.
- (1) Preventive Maintenance. Preventive Maintenance (PM) of the SATCC System is limited to cleaning, measuring, testing, and corrosion prevention. Apart from "general housekeeping," cleaning and corrosion prevention is performed on an annual schedule in accordance with the preliminary Maintenance Requirements Cards (MRC). Measurements are taken and tests are conducted during monthly and quarterly maintenance checks and as required.
- (2) Corrective Maintenance. Corrective Maintenance of the SATCC System includes fault isolation and replacement to the Lowest Repairable Unit (LRU), connector repair, and headset/handset piece part replacement. The LRU for the switch and TED is defined to be the module. The LRU for the PICT is the entire unit, with the exception of the knobs.

b. Intermediate. NA

c. Depot. A depot level maintenance plan is being developed and will be in place concurrent with the Material Support Date (MSD) currently scheduled for July 2001. When more information becomes available it will be included in future updates to this NTSP. The depot plan will address the three major components: the 3080G switch, TED, and PICT. Direct Vendor Delivery methodology will be considered for each of these components.

- **d. Interim Maintenance.** Maintenance support will be available on an asrequired basis through the Space and Naval Warfare (SPAWAR) Systems Center In-Service Engineering Activity (ISEA) until MSD is met.
- **e. Life-Cycle Maintenance Plan.** The design of the SATCC System is such that, when properly maintained, it will support continuous operation throughout its projected ten-year service life.

3. Manning Concept

- a. Estimated Maintenance Man-Hours per Operating Hour. The SATCC System requires 35 man-hours of PM annually in accordance with the preliminary Preventive Maintenance System (PMS) and MRC package, Fleet Technical Support Center Pacific Publication 4416P19-60. Additionally, 21 maintenance man-hours will be required for Lay-up and Start-up PMS conducted in association with ship inactive periods. These maintenance manhour estimates do not include communication checks for CATCC, LSO, and PRI-FLY. With the system being software driven, communications checks can be accomplished once prior to getting underway to verify operation (accomplished by user or CATCC personnel as part of their normal underway checks). The LSO override interface is software driven and need only be tested during Ships Operational Verification Testing and software updates. Checks for system failures are conducted internally by system software. Technicians need only conduct maintenance actions when equipment reports failures or PMS and MRC requires. Along the same line, the system is highly reliable and does not require a technician to be present in CATCC during Case III (night or bad weather) flight operations to monitor the system. The SPAWAR System Center is currently conducting a Reliability Centered Maintenance (RCM) analysis. This RCM analysis may identify additional PMS and MRC procedures; however, an increase in man-hours is not expected to be significant.
- **b. Proposed Utilization.** The SATCC System is maintained in an up-and-operating status 24 hours per day, seven days per week. The only time the system is taken down is during extended periods of ship inactivity such as a yard period or for annual cleaning and inspection.

c. Recommended Qualitative and Quantitative Manpower Requirements

- (1) **Operator.** There are no billets dedicated solely to the operation of the SATCC System. The personnel who operate the SATCC System are filling watch-station requirements and are required even if the SATCC System does not replace the existing systems.
- (2) Maintenance. Two ETs with primary NEC 1425 and secondary NEC 14XX will be required to maintain the SATCC System at each operating site.
- (3) **Predecessor System.** The OJ-314(V) Voice Switch is maintained by ETs with NEC 1568 and requires 1,535 man-hours of maintenance annually. This reduction in workload may have an impact on the ship's manpower requirement for ET 1568 personnel.

4. Training Concept. Naval Sea Systems Command (NAVSEA) Code 53Z and SPAWAR System Center ISEA are providing initial operator and maintenance training to personnel at each activity receiving the SATCC System. Follow-on operator training for CATCC personnel, LSOs, Air Operations Officers, and Assistant Air Operations Officers will be incorporated into the existing course at Naval Air Technical Training Center (NATTC) Pensacola, Florida, and the LSO School at Naval Air Station (NAS) Oceana, Virginia. The remaining operators will receive training via Personnel Qualification Standards (PQS) and On-the-Job Training (OJT). Follow-on SATCC System Maintenance training will be accomplished by sending ET 1425 personnel to the RDVS IIA course at the FAA Academy in Oklahoma City, Oklahoma. Graduates of this FAA course will be awarded secondary NEC 14XX, AN/SSC-12 Communications System Maintenance Technician. Formal follow-on training will begin when 50 percent of the aircraft carriers are configured with the SATCC System.

a. Initial Training

(1) **Operator.** Initial operator training consists of Computer-Based Training (CBT) delivered to the ship by the Program Office, NAVSEA Code 53Z, in Compact Disk-Read Only Memory format during the initial installation. In addition to CBT, familiarization training is conducted with each work center, and SPAWAR ISEA personnel provide OJT during the initial underway period. Quick reference guides are provided to the work centers along with vendor-supplied user's manuals.

(2) **Maintenance.** NAVSEA funded maintenance technicians from the first two installation sites (CVN 65, USS Enterprise and CVN 75, USS Harry S. Truman) to attend factory training. Beginning with the third installation, NAVSEA has funded two maintenance technicians at each activity receiving the SATCC System to attend RDVS maintenance training at the FAA Academy in addition to the CBT and OJT described above. Personnel who completed initial maintenance training, either at the factory or the FAA Academy, are eligible to receive the new secondary NEC 14XX, AN/SSC-12 Communications System Maintenance Technician.

Title Rapid Deployable Voice Switch IIA Training

CIN 40042

Course Manager .. FAA

Description The course provides training to Army, Navy, and FAA civilian Electronics Technicians, including:

° RDVS Operation

° RDVS Troubleshooting

° RDVS Component replacement

° RDVS Preventive Maintenance

Upon completion, the student will be able to perform organizational level SATCC System maintenance without supervision.

Location FAA Academy, Oklahoma City

Length 9 days

RFT date Currently available

Skill identifier Secondary NEC 14XX

TTE/TD NA

Prerequisite ET 1425

b. Follow-on Training

(1) Operator

(a) Carrier Air Traffic Control Center Personnel. SATCC

System operator information for CATCC personnel will be incorporated into existing courses at NATTC Pensacola. No additions to current course lengths are anticipated.

Title Carrier Air Traffic Control Center Operations, Class C1

CIN C-222-2012

Model Manager ... NATTC Pensacola

Description The course provides training to prospective CATCC Operators, including:

- ° The Organization, Directives, Rules, Procedures, and Phraseology Related to CATCC
- ° Shipboard Organization and Interrelations
- ° Operational Directives
- ° CV Naval Air Training and Operating Procedures Standardization (NATOPS)
- ° CATCC Doctrine, Operation Orders, and Daily Air Plans
- ° CATCC Radar
- ° Direct Altitude Identity Readout System
- ° Internal and External Communications
- ° Informational Display System
- Duties, Responsibilities, and Skill Requirements Associated with Different Operational and Controller Positions in the CATCC
- CATCC Controller and Status Board Keeper Watch Station Operations Functions Under Simulated Operational Conditions

Upon completion, the student will be qualified to perform functions, under direct supervision, in a CATCC that lead to the completion of PQS for a CATCC Watch Stander.

Location NATTC Pensacola

Length 40 days

RFT date Currently available

Skill identifier AC 6902

TTE/TD Device 15G30

Prerequisite C-222-2010, Air Traffic Controller "A" School

Title Carrier Air Traffic Control Center Operations Fundamentals Course, Class F1

CIN C-222-2014

Model Manager ... NATTC Pensacola

Description The course provides training to AC personnel, including:

- ° Publications
- ° Phraseology
- ° Equipment Identification
- ° Watch Station Functions
- ° Status Board
- ° Marshal Status Board
- ° Approach Status Board
- ° Precision Approach Watch Station
- ° Landing System Watch Station
- ° Final Controller Watch Station

Upon completion, the student will be qualified to perform functions, under direct supervision, in a CATCC that lead to the completion of PQS for a CATCC Watch Stander.

Location NATTC Pensacola

Length 40 days

RFT date Currently available

Skill identifier None

TTE/TD Device 15G30

Prerequisite C-222-2010, Air Traffic Controller "A" School

Title Carrier Air Traffic Control Center Team Training, Class T1

CIN C-222-2017

Model Manager ... NATTC Pensacola

Description This course provides training to CATCC Watch Teams, including four simulated CATCC scenarios each day. After each scenario, Instructor personnel review the performance of the Watch Team and provide additional instruction as required. Upon completion, the Watch Team will be able to perform normal and emergency ATC functions more efficiently.

Locations...... NATTC Pensacola

Length 12 days

RFT date Currently available

Skill identifier None

TTE/TD Device 15G30

Prerequisite C-222-2010, Air Traffic Controller "A" School

(b) Landing Signal Officer. SATCC System Operator

information for Navy LSOs will be incorporated into existing LSO courses at NAS Oceana. No additions to current course lengths are anticipated.

Title Landing Signal Officer Initial Formal Ground Training

CIN D-2G-0001

Model Manager ... Commander, Naval Air Force Atlantic

(COMNAVAIRLANT)

Description This course provides training to prospective Squadron

LSOs, including:

- ° LSO Administrative and Operational Responsibilities including Shore-Based and Shipboard Equipment
- ° Glideslope Geometry
- ° Aircraft Recovery Bulletins
- ° Aircraft Characteristics
- ° Waving Concepts and Techniques
- ° Field Carrier Landing Practice
- ° Fleet Automated Performance Assessment and Readiness Training Systems

Upon completion, the student will be able to perform the duties of a squadron LSO without supervision.

Locations NAS Oceana

Length 10 days

RFT date Currently available

Skill identifier Squadron LSO

TTE/TD LSO Heads-Up Display (HUD)

Prerequisite Designated as an LSO Trainee in accordance with LSO

NATOPS

Title Landing Signal Officer Advanced Formal Ground Training

CIN D-2G-0002

Model Manager ... COMNAVAIRLANT

Description This course provides training to prospective Wing and Staff LSOs, including:

- Administrative and Operational Responsibilities of a Wing and Staff LSO
- ° Platform Strategy
- ° Barricade
- ° Pitching Deck Recoveries
- ° LSO Training and Evaluation
- ° Fleet Automated Performance Assessment and Readiness Training System

Upon completion, the student will be able to perform the duties of a Wing or Staff LSO without supervision.

Location NAS Oceana

Length 3 days

RFT date Currently available

Skill identifier Wing or Staff LSO

TTE/TD LSO HUD

Prerequisites ° D-2G-0001, Landing Signal Officer Initial Formal Ground Training

° Designated LSO

Title Landing Signal Officer Fleet Readiness Squadron and Training Command Squadron

CIN D-2G-0003

Model Manager ... COMNAVAIRLANT

Description This course provides training to prospective Fleet Readiness Squadron (FRS) and Training Command LSOs, including:

- Administrative and Operational Responsibilities of a Training LSO
- ° Teaching Waving Techniques and Considerations
- Conducting of Ground Training and Field Carrier Landing Practice
- ° Initial Carrier Qualification Requirements
- ° FRS Automated Performance Assessment and Readiness Training System

Upon completion, the student will be able to perform the duties of a FRS or Training Command LSO without supervision.

Location NAS Oceana

Length 3 days

RFT date Currently available

Skill identifier FRS LSO or Training Command Squadron LSO

TTE/TD LSO HUD

Prerequisites ° D-2G-0001, LSO Initial Formal Ground Training

° Designated LSO

(c) Air Officer and Assistant Air Officer. Air Officer and

Assistant Air Officer candidates are required to attend a two-day LSO indoctrination seminar at the LSO School, NAS Oceana. SATCC System Operator information will be included in this seminar.

(d) Air Operations Officer and Assistant Air Operations

Officer. Air Operations Officer and Assistant Air Operations Officer candidates attend the following course. No addition to the current course length is anticipated.

Title Carrier Air Traffic Control Center Operations Officer, Class C2

CIN C-2G-2019

Model Manager ... NATTC Pensacola

Description The course provides training to prospective CV/CVN Air Operations Officer and Assistant Air Operations Officer, including:

- ° Operational Directives
- ° Publications
- ° CV NATOPS
- ° Phraseology
- ° Equipment Identification
- ° Watch Station Functions
- ° Status Boards
- ° Standard CATCC Procedures

Upon completion, the student will be able to perform as a CV/CVN Air Operations Officer or Assistant Air Operations Officer.

Location NATTC Pensacola

Length 10 days

RFT date Currently available

Skill identifier None

TTE/TD Device 15G30

Prerequisite Receive orders as a CV/CVN Air Operations Officer or Assistant Air Operations Officer

(e) Combat Direction Center Personnel. CDC personnel, including the Strike Control Operator, Air Intercept Control Operator, Tactical Action Officer, and USW Operator, receive required SATCC System Operator training by completing the applicable PQS.

(f) Bridge Personnel. Bridge Personnel, including the Commanding Officer and OOD, obtain SATCC System Operator training through OJT and any applicable PQS.

(2) Maintenance. The same FAA course that is being used for initial SATCC maintenance training will be used for follow-on maintenance training. Follow-on training will be accomplished by sending ET 1425 personnel that have Permanent Change of Station orders to CVs and CVNs to the RDVS IIA course at the FAA Academy in Oklahoma City.

Title Rapid Deployable Voice Switch IIA Training

CIN 40042

Course Manager .. FAA

Description This course provides training to Army, Navy, and FAA

civilian Electronics Technicians, including:

° RDVS Operation

° RDVS Troubleshooting

° RDVS Component Replacement

° RDVS Preventive Maintenance

Upon completion, the student will be able to perform organizational level SATCC System maintenance without . . .

supervision.

Location FAA Academy, Oklahoma City

Length 9 days

RFT date Currently available

Skill identifier Secondary NEC 14XX

TTE/TD NA

Prerequisite ET 1425

c. Student Profiles

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
AC 6902	° C-222-2010, Air Traffic Controller
ET 1425	° A-100-0138, Electronics Technician Core "A" School ° A-100-0140, Electronics Technician Strand "A" School

d. Training Pipelines. NA

I. ONBOARD (IN-SERVICE) TRAINING

1. Proficiency or Other Training Organic to the New Development

a. Maintenance Training Improvement Program. NA

- b. Aviation Maintenance In-Service Training. NA
- c. Aviation Maintenance Training Continuum System. NA
- **2. Personnel Qualification Standards.** The following Naval Education and Training (NAVEDTRA) PQSs will require updating with SATCC System Operator information:

PERSONNEL QUALIFICATION STANDARD TITLE	PUBLICATION NUMBER
Surface Warfare Officer (Warfare/Combat Information Center Watch Officer (CICWO)/OOD Under Way (UW))	NAVEDTRA 43101-4E
Errata 1 for Surface Warfare Officer (Warfare/CICWO/OOD UW)	NAVEDTRA 43101-4E/ERR
CV/CVN Undersea Warfare Module Analysis	NAVEDTRA 43205-7A
Tactical Support Center Mission Coordination and Evaluation Officer	NAVEDTRA 43206-0C
Tactical Support Center Operations Control Watch	NAVEDTRA 43206-5C
Combat Information Center Common Core Watch Station Qualification	NAVEDTRA 43311-4
Surface/Subsurface Warfare Coordinator/Anti-Air Warfare Information	NAVEDTRA 43388-1A
CV/CVN Tower Operations	NAVEDTRA 43426-2C
CV/CVN OOD UW	NAVEDTRA 43496-1A
CV/CVN Air Traffic Control Center	NAVEDTRA 43496-6C
CV/CVN Advanced Combat Direction/Combat Direction Center	NAVEDTRA 43496-7A
CDC Watch Officer	NAVEDTRA 43553

3. Other Onboard or In-Service Training Packages. Each ship has a locally prepared watch station checklist that personnel must complete prior to being qualified as a Watch Stander on the bridge. As the SATCC System is installed on each ship, SATCC System Operator information will be added to these checklists.

J. LOGISTICS SUPPORT

1. Manufacturer and Contract Numbers

CONTRACT NUMBER	MANUFACTURER	ADDRESS
N65236-97-D-5020	Litton Data Systems	10770 Wateridge Circle San Diego, CA 92191-5701

- **2. Program Documentation.** NAVSEA is currently developing the Operational Requirements Document, Integrated Logistics Support Plan, Maintenance Plan, and other related program documents. When completed, this information will be included in future updates to this NTSP.
- **3. Technical Data Plan.** NAVSEA is currently developing the required MRCs and Maintenance Index Page. Commercial operator and maintenance manuals will be utilized. In accordance with current directives, the primary maintenance manuals will be produced as Interactive Electronic Technical Manuals using the approved Standard Generalized Mark-up Language format. Until the Navy documents are completed, the following hard copy contractor-furnished manuals will be issued:

PUBLICATION TITLE	PUBLICATION NUMBER	EFFECTIVE DATE
Integrated Communications Switching System Model 3080G Operator's Manual	TPM9712100	18 December 1997
Integrated Communications Switching System Model 3080G Operations and Maintenance Manual	TPM9903201	31 March 1999
Integrated Communications Switching System Model 3080G Users Manual	TPM9904300	25 March 1999
Integrated Communications Switching System Model 3080G System Generation Manual	TPM9904400	25 March 1999

4. Test Sets, Tools, and Test Equipment. No special test sets or special test equipment are required to support the SATCC System. All hand tools and common electronic test equipment required to support the SATCC System are currently available in the maintenance work center.

- **5. Repair Parts.** Prior to MSD, the contractor provides repair parts for components under warranty. The Navy Inventory Control Point Mechanicsburg, Pennsylvania, will be responsible for SATCC System supply support after MSD. Fleet users will requisition required spare and repair parts through normal supply channels. The ISEA will provide any requirement for repair parts that occur between the end of the warranty period and MSD.
- **6. Human Systems Integration.** Since the SATCC System is a COTS procurement action, the Navy had no additional Human Systems Integration (HSI) input into the hardware design, except those considerations during installation of the equipment to ensure units were positioned to provide ease of access for maintenance personnel and comfort of operation to the operators. The Navy has drawn from the HSI efforts put forth by the FAA in the development of the RDVS System with additional software modifications to meet fleet requirements as they relate to end user features and functions.

K. SCHEDULES

1. Installation and Delivery Schedules

ACTIVITY	PROCUREMENT DATE	INSTALLATION YEAR
CVN 65 USS Enterprise	November 1997	FY98
CVN 75 USS Harry S. Truman	August 1999	FY99
CV 63 USS Kitty Hawk	November 1999	FY01
CVN 69 USS Dwight D. Eisenhower	January 2000	FY01
CVN 68 USS Nimitz	September 2000	FY02
CVN 70 USS Carl Vinson	September 2000	FY02
CVN 72 USS Abraham Lincoln	September 2000	FY01
CVN 76 USS Ronald Reagan	September 2000	FY01
CVN 71 USS Theodore Roosevelt	November 2001	FY02
CVN 74 USS John C. Stennis	March 2002	FY02
CVN 73 USS George Washington	November 2002	FY03
CV 67 USS John F. Kennedy	December 2002	FY03
CVN 77	To Be Determined	To Be Determined

- **2. Ready For Operational Use Schedule.** All systems will be ready for operational use upon completion of installation.
- **3. Time Required to Install at Operational Sites.** Three months are required to install the SATCC System.
 - 4. Foreign Military Sales and Other Source Delivery Schedule. NA
 - 5. Training Device and Technical Training Equipment Delivery Schedule
 - a. Training Devices. NA
- **b. Technical Training Equipment.** Computers that simulate the information sent to TEDs and PICTs will be used in place of the actual switch hardware for operator training. This computer program will be required six months prior to the first class convening date. Operator Labs at NATTC Pensacola will be configured with replica SATCC TEDs for all Supervisor and Controller positions and replica SATCC PICTs for Status Board/Data Input Operators and command and control watch stations.

L. GOVERNMENT-FURNISHED EQUIPMENT AND CONTRACTOR-FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA

M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
Enhanced Terminal Voice Switch Navy Training System Plan	A-50-9701/A	PMA213	Approved Apr 99
Shipboard Air Traffic Control Communications Operational Requirements Document	ACAT IV M	NAVSEA	Draft in work
Integrated Communications Switching System Model 3080-G Operator's Manual	TPM9712100	Litton/Amecom	Dec 97
Command Control And Communications C3 Systems Threat Assessment	ONI-TA-009-95	Office of Naval Intelligence	Approved Jul 95

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